

CLAIMS

What is claimed is:

- 1    1.    A converter device, comprising:  
2        a board having a first side and a second side, wherein  
3            the first side includes a first set of contacts suitable for electrically  
4            contacting an integrated circuit having a first configuration; and  
5            the second side includes a second set of contacts suitable for electrically  
6            contacting a circuit board having a second configuration, wherein  
7            the second set of contacts are communicatively coupled to the  
8            first set of contacts;  
9            wherein contacts having a function configured in the first configuration  
10           are not arranged with contacts having a corresponding function  
11           configured in the second configuration.
- 1    2.    The converter device as described in claim 1, wherein a device having the first  
2        configuration is unsuitable for direct contact and operation with a device having  
3        the second configuration.
- 1    3.    The converter device as described in claim 1, further comprising an integrated  
2        circuit having a set of contacts arranged in the first configuration and a circuit  
3        board have a set of contacts arranged in the second configuration.
- 1    4.    The converter device as described in claim 3, wherein the integrated circuit set  
2        of contacts includes at least one contact having a function corresponding to a  
3        function of a contact of the circuit board, the integrated circuit contact  
4        positioned so that when the integrated circuit is arranged with the circuit board,  
5        the integrated circuit contact is not positioned for electrical coupling to the

6 contact of the circuit board having a corresponding function.

1 5. The converter device as described in claim 1, further comprising a power layer  
2 and a ground layer.

1 6. The converter device as described in claim 1, wherein the first set of contacts is  
2 electrically connected over an electrical connection to the second set of contacts.

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- 1    7.    An apparatus, comprising:  
2            an integrated circuit including a set of contacts, wherein the integrated circuit set  
3            of contacts is suitable for operation in a first configuration;  
4            a circuit board including a set of contacts, wherein the circuit board set of  
5            contacts is suitable for operation in a second configuration; and  
6            a converter device disposed between the integrated circuit and the circuit board,  
7            wherein the converter board includes  
8                    a first set of contacts suitable for contacting the integrated circuit  
9                    having the first configuration, and  
10                   a second set of contacts suitable for contacting the circuit board  
11                   having the second configuration, wherein the first set of  
12                   contacts is communicatively coupled to the second set of  
13                   contacts.
- 1    8.    The apparatus as described in claim 7, wherein contacts of the integrated circuit  
2            having a function configured in the first configuration are not arranged with  
3            contacts of the circuit board having a corresponding function configured in the  
4            second configuration.
- 1    9.    The apparatus as described in claim 7, wherein a device having the first  
2            configuration is unsuitable for direct contact and operation with a device having  
3            the second configuration.
- 1    10.   The apparatus as described in claim 7, wherein the first set of contacts is  
2            disposed to the second set of contacts as at least one of opposing sides of the  
3            converter device and sharing a side of the converter device.
- 1    11.   The apparatus as described in claim 7, wherein the integrated circuit set of

2 contacts includes at least one contact having a function corresponding to a  
3 function of a contact of the circuit board, the integrated circuit contact  
4 positioned so that when the integrated circuit is arranged with the circuit board,  
5 the integrated circuit contact is not positioned for electrical coupling to the  
6 contact of the circuit board having a corresponding function.

1 12. The apparatus as described in claim 7, wherein the converter device includes a  
2 first converter board and a second converter board.

1 13. The apparatus as described in claim 12, wherein the first converter board  
2 includes the first set of contacts and the second converter board includes the  
3 second set of contacts, the first set of contacts being communicatively coupled to  
4 the second set of contacts utilizing an intermediate set of contacts.

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- 1 14. An apparatus, comprising:  
2 an integrated circuit including a set of contacts, wherein the integrated circuit set  
3 of contacts is suitable for operation in a first configuration;  
4 a circuit board including a set of contacts, wherein the circuit board set of  
5 contacts is suitable for operation in a second configuration; and  
6 a converter device disposed between the integrated circuit and the circuit board,  
7 wherein the converter device includes a first set of contacts suitable for  
8 contacting the integrated circuit having the first configuration and a  
9 second set of contacts suitable for contacting the circuit board having the  
10 second configuration, the first set of contacts electrically coupled to the  
11 second set of contacts,  
12 wherein the integrated circuit set of contacts includes at least one contact having  
13 a function corresponding to a function of a contact of the circuit board,  
14 the integrated circuit contact positioned so that when the integrated  
15 circuit is arranged with the circuit board, the integrated circuit contact is  
16 not positioned for electrical coupling to the contact of the circuit board  
17 having a corresponding function.
- 1 15. The apparatus as described in claim 14, wherein an integrated circuit configured  
2 for contacting the first set of contacts of the converter device includes at least  
3 one contact positioned so as to be unsuitable for operation with the circuit  
4 board.
- 1 16. The apparatus as described in claim 14, wherein a device having the first  
2 configuration is unsuitable for direct contact and operation with a device having  
3 the second configuration.
- 1 17. The apparatus as described in claim 14, wherein the first set of contacts is

2 disposed to the second set of contacts as at least one of opposing sides of the  
3 converter device and sharing a side of the converter device.

1 18. The apparatus as described in claim 14, wherein contacts having a function  
2 configured in the first configuration are not arranged with contacts having a  
3 corresponding function configured in the second configuration.

1 19. The apparatus as described in claim 14, wherein the converter device includes a  
2 first converter board and a second converter board.

1 20. The apparatus as described in claim 19, wherein the first converter board  
2 includes the first set of contacts and the second converter board includes the  
3 second set of contacts, the first set of contacts being communicatively coupled to  
4 the second set of contacts utilizing an intermediate set of contacts.

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